CLAIMS

What is Claimed is:

1. A method of screening a patient perioperatively to determine a risk for surgical complications associated with known genetic variations comprising:

a) obtaining a sample from a perioperative subject; and

b) subjecting said sample to an assay for detecting variant alleles of two or more genes selected from the group consisting of BChE, P450CYP2D6, F 5 Leiden, Prothrombin FII, RYR1, CACNA1S, MTHFR, MTR, MTRR, CBS, TNFα and TNFβ to generate a genomic profile for use in selecting a perioperative course of action.

2. The method of Claim 1, wherein said assay detects 3 or more of said genes.

3. The method of Claim 1, wherein said assay detects all of said genes.

4. The method of Claim 1, wherein said variant BChE alleles are selected from the group consisting of A209G and G1615A.

5. The method of Claim 1, wherein said variant P450CYP2D6 alleles are selected from the group consisting of G1934A, A263 deletion, and T1795 deletion.

6. The method of Claim 1, wherein said variant MTHFR alleles are selected from the group consisting of C677T and A1298C.

7. The method of Claim 1, wherein said variant MTR allele is A2756G.

8. The method of Claim 1, wherein said variant MTRR allele is A66G.

9. The method of Claim 1, wherein said variant CBS allele is an intron 7 68bp insertion.

10. The method of Claim 1, wherein said variant F 5 Leiden allele is G1691A.

11. The method of Claim 1, wherein said variant prothrombin allele is G20210A.

12. The method of Claim 1, wherein said variant RYR1 alleles are selected from the group consisting of G6502A, G1021A, C1840T, C6487T, G7303A, and C7373A.

13. The method of Claim 1, wherein said variant CACNA1S allele is G3257A.

14. The method of Claim 1, wherein said variant TNFα allele is G-308A.

15. The method of Claim 1, wherein said variant TNFβ allele is G+252A.

16. The method of Claim 1, wherein said assay comprises an INVADER assay.

17. The method of Claim 1, wherein said subjecting step occurs after said patient is scheduled for surgery but before completion of said surgery.

18. The method of Claim 1, wherein said course of action comprises administration of a pharmacologic agent during a procedure selected from the group consisting of a surgical procedure and a medical procedure.

19. The method of Claim 18, wherein said pharmacologic agent is anesthesia.

20. The method of Claim 18, wherein said pharmacologic agent is an analgesic.

21. The method of Claim 1, further comprising the step of c) using said genomic profile for selection of conditions for a surgical procedure carried out on said patient.

22. A kit for generating a perioperative genomic profile for a subject, comprising:

a) a reagent capable of detecting the presence of a variant allele of two or more genes markers selected from the group consisting of BChE, P450CYP2D6, F 5 Leiden, Prothrombin FII, RYR1, CACNA1S, MTHFR, MTR, MTRR, CBS, TNFα and TNFβ; and

b) instructions for using said kit for generating said perioperative genomic profile for said subject.

23. A perioperative genomic profile comprising variant allele information for two or more genes selected from the group consisting of: BChE, P450CYP2D6, F 5 Leiden, Prothrombin FII, RYR1, CACNA1S, MTHFR, MTR, MTRR, CBS, TNFα and TNFβ.